



US Army Corps of
Engineers
St. Paul District

Locks and Dams 2 - 10, Embankment Maintenance Study

Location/Description

An earthfill embankment dam is included in each of the Mississippi River Locks and Dams 2 through 10 sites. All of the sites at Locks and Dams 2 through 10 are included in the Embankment Maintenance Study.

The study has two major objectives:

1. To recommend measures to extend the useful life of the embankments, considering the potential for high floods, the degradation of the riprap, and the presence of seepage and tree growth at the downstream toe of some of the embankments, and to bring the embankments into conformance with current Corps of Engineers design standards.
2. To study the feasibility of incorporating various environmental restoration measures as features of the rehabilitation/maintenance of the embankments.

This study is a collaborative effort with the Corps' St. Paul District and the Federal and State natural resource agencies that have responsibilities for management of the Upper Mississippi River System.

Two other ongoing Corps projects related to embankments have issues similar to those of the Embankment Maintenance Study, but they are separate efforts

- A project entitled "Mississippi River Locks and Dams Nos. 2-10 Embankment Rehabilitation" is managed by Neil Helming. This project focuses mainly on embankments that need repair within the next 5 years. The repair work consists of rock replacement on the upstream and downstream slopes of selected reaches of embankments at Locks and Dams 2, 5, 5A, 6, and 8. The construction on these sites should be completed by December 2006.
- A project entitled "Mississippi River: Lock and Dam 3 Navigation Safety and Embankments Reevaluation," is managed by Dan Wilcox. This reevaluation study is addressing problems caused by an outdraft current condition as well as problems maintaining the structural integrity of a set of three earthen embankments that connect the gated part of the dam to high ground on the Wisconsin side.

Status

The Embankment Maintenance Study was initiated in April 2002, with a presentation on the proposed study to the River Resources Forum. A collaborative study team was formed with representatives of the Corps and State and Federal natural resource and transportation agencies.

The deliverables for this study are (1) a problem appraisal report, and (2) a reconnaissance-level design and costs for various proposed environmental features at one site. The problem appraisal report was completed in December 2003; the River Resource Forum endorsed it in April 2004. Preconstruction engineering and design of selected environmental features was initiated in fiscal year 2005 under the Navigation and Environmental Sustainability Program (NESP). Implementation of selected features could occur in fiscal year 2006 if NESP is authorized.

The budget for the study was \$300,000. The study concludes on 30 September 2005.

Authority

The Upper Mississippi River Nine-Foot Channel Navigation Project was authorized as part of the River and Harbor Act approved July 3, 1930.

Fiscal

Funding for completion of this study is programmed out of Operations and Maintenance funds for fiscal years 2002 through 2005. Preconstruction engineering and design is funded with NESP.
